



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2015-3634; Directorate Identifier 2014-NM-203-AD; Amendment 39-18521; AD 2016-10-10]

RIN 2120-AA64

Airworthiness Directives; Bombardier, Inc. Airplanes

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Final rule.

SUMMARY: We are superseding Airworthiness Directive (AD) 2014-20-01 for certain Bombardier, Inc. Model CL-600-2B16 (CL-601-3A, CL-601-3R, and CL-604 Variants) airplanes. AD 2014-20-01 required repetitive inspections for any fuel leak in the right-hand landing lights compartment, and related investigative and corrective actions if necessary. AD 2014-20-01 also provides for an optional replacement of the connector of the fuel boost pump canister of the auxiliary power unit (APU), which terminates the repetitive inspections. This new AD requires replacing the connector of the fuel boost pump canister of the APU. This AD was prompted by the determination that a terminating action for the repetitive inspections is necessary. We are issuing this AD to detect and correct fuel leaks in the right-hand landing lights compartment, which, in combination with the heat generated by the taxi lights and landing lights on the ground reaching the auto-ignition temperature of the fuel, could result in ignition of any fuel or fumes present in the right-hand landing lights compartment.

DATES: This AD becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of October 20, 2014 (79 FR 59640, October 3, 2014).

ADDRESSES: For service information identified in this finale rule, contact Bombardier, Inc., 400 Côte-Vertu Road West, Dorval, Québec H4S 1Y9, Canada; telephone 514-855-5000; fax 514-855-7401; email thd.crj@aero.bombardier.com. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2015-3634.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2015-3634; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone 800-647-5527) is Docket Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC.

FOR FURTHER INFORMATION CONTACT: Assata Dessaline, Aerospace Engineer, Avionics and Services Branch, ANE-172, FAA, New York Aircraft Certification Office (ACO), 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7301; fax 516-794-5531.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to supersede AD 2014-20-01, Amendment 39-17974 (79 FR 59640, October 3, 2014) (“AD 2014-20-01”). AD 2014-20-01 applied to certain Bombardier, Inc. Model CL-600-2B16 (CL-601-3A, CL-601-3R, and CL-604 Variants) airplanes. The NPRM published in the Federal Register on September 24, 2015 (80 FR 57543) (“the NPRM”). The NPRM was prompted by the determination that a terminating action for the repetitive inspections is necessary. The NPRM proposed to continue to require repetitive inspections for any fuel leak in the right-hand landing lights compartment, and related investigative and corrective actions. The NPRM also provided an optional replacement of the connector of the fuel boost pump canister of the APU, which terminates the repetitive inspections. We are issuing this AD to detect and correct fuel leaks in the right-hand landing lights compartment, which, in combination with the heat generated by the taxi lights and landing lights on the ground reaching the auto-ignition temperature of the fuel, could result in ignition of any fuel or fumes present in the right-hand landing lights compartment.

Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued Canadian Emergency Airworthiness Directive CF-2014-21, dated July 10, 2014 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for certain Bombardier, Inc. Model CL-600-2B16 (CL-601-3A, CL-601-3R, and CL-604 Variants) airplanes. The MCAI states:

Bombardier, Inc. has discovered fuel leakage in the auxiliary power unit (APU) fuel Boost Pump (BP) canister connector cavity. On some of those aeroplanes, leakage

was also noticed at the APU fuel BP electrical conduit connection in the right hand landing light compartment. The root cause of the subject fuel leak is identified to be the improper length of the female connector keyway located in the fuel BP canister, causing a shift of the electrical harness and its seals.

Available data indicates that on a hot day, due to the heat generated by the taxi light and/or landing lights on the ground, temperature in the landing light compartment can reach the fuel auto ignition temperature. Therefore, presence of any fuel in the right hand landing light compartment is considered to be a safety hazard [fuel or fumes present in the right-side landing lights compartment might ignite] that warrants mitigating action.

In order to help mitigate the potential safety hazard precipitated by any fuel leakage in the right hand landing light compartment, Bombardier, Inc., has revised the Aircraft Flight Manual (AFM) through Temporary Revisions (TRs) 604/38 and 605/20 dated 16 June 2014 to restrict the operation of Taxi and Landing lights on the ground. Transport Canada issued Emergency [Canadian] AD CF-2014-17 [<http://ad.easa.europa.eu/ad/CF-2014-17>], which corresponds to FAA AD 2014-15-17, Amendment 39-17919 (79 FR 44268, July 31, 2014)] to mandate incorporation of the above AFM TRs.

To address the root cause of the subject fuel leakage from the APU fuel boost pump canister wiring conduit, Bombardier, Inc. issued Alert Service Bulletin (ASB) A605-28-008 that requires periodic [repetitive general visual] inspection[s] for fuel leaks and [applicable related investigative and corrective actions and] eventually the replacement of the discrepant fuel BP canister connectors [including related investigative and corrective actions] on affected aeroplanes. The ASB has been revised to include an additional inspection of the new connector wiring for damage and this [Canadian] AD is issued to mandate the compliance with ASB A605-28-008 Revision 2 requirements.

We also included compliance times for the terminating action. You may examine the MCAI in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2015-3634.

Comments

We gave the public the opportunity to participate in developing this AD. The following presents the comments received on the NPRM and the FAA's response to each comment.

Support for the NPRM

Mr. James Tyron stated that he supports the actions proposed in the NPRM, and asserted that the time and cost of repetitively inspecting these airplanes will be reduced as a result.

Request to Shorten a Certain Compliance Time

Mr. Connor McClintock requested that the connectors and wiring be inspected immediately instead of within 5 months or 150 flight hours after issuance of the AD, and those failing safety standards should likewise be replaced immediately to reduce further risk of an accidental fire. The commenter stated that the compliance times for replacing APU boost pump connectors, as described in paragraph (j) of the proposed AD, seems unnecessarily long. The commenter provided no technical justification for reducing this proposed compliance time.

We disagree with changing the compliance times for replacing APU boost pump connectors. AD 2014-15-17 revised the Aircraft Flight Manual to restrict the operation of taxi and landing lights on the ground to reduce the chance of a fire. In addition, the compliance time for replacing the APU boost pump connectors was developed by the manufacturer in concert with TCCA and it represents an interval that, when combined

with the mitigating actions in AD 2014-15-17, will reduce the risk of fire. We have not changed the AD in this regard.

Conclusion

We reviewed the available data, including the comments received, and determined that air safety and the public interest require adopting this AD as proposed, except for minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

Costs of Compliance

We estimate that this AD affects 92 airplanes of U.S. registry.

The actions required by AD 2014-20-01 and retained in this AD take about 2 work-hours per product, at an average labor rate of \$85 per work-hour. Based on these figures, the estimated cost of the actions that were required by AD 2014-20-01 is \$170 per product.

We also estimate that it takes about 22 work-hours per product to comply with the basic requirements of this AD. The average labor rate is \$85 per work-hour. Based on these figures, we estimate the cost of this AD on U.S. operators to be \$172,040, or \$1,870 per product.

According to the manufacturer, some of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected individuals. We do not control warranty coverage for affected individuals. As a result, we have included all costs in our cost estimate.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

1. Is not a "significant regulatory action" under Executive Order 12866;
2. Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska; and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by removing Airworthiness Directive (AD) 2014-20-01, Amendment 39-17974 (79 FR 59640, October 3, 2014), and adding the following new AD:

2016-10-10 Bombardier, Inc.: Amendment 39-18521. Docket No. FAA-2015-3634; Directorate Identifier 2014-NM-203-AD.

(a) Effective Date

This AD becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

This AD replaces AD 2014-20-01, Amendment 39-17974 (79 FR 59640, October 3, 2014) (“AD 2014-20-01”).

(c) Applicability

This AD applies to Bombardier, Inc. Model CL-600-2B16 (CL-601-3A, CL-601-3R, and CL-604 Variants) airplanes, certificated in any category, serial numbers 5906, 5910, 5912, 5917, 5919 through 5932 inclusive, 5934, 5935, 5939, 5940, 5942, and 5948.

(d) Subject

Air Transport Association (ATA) of America Code 28, Fuel.

(e) Reason

This AD was prompted by a report of fuel leaks in the auxiliary power unit (APU) fuel boost pump canister connector cavity and in the right-hand landing lights compartment from the APU fuel boost pump electrical conduit connection, and by a determination that terminating action for the repetitive inspections is necessary. We are issuing this AD to detect and correct fuel leaks in the right-hand landing lights compartment, which, in combination with the heat generated by the taxi lights and landing lights on the ground reaching the auto-ignition temperature of the fuel, could result in ignition of any fuel or fumes present in the right-hand landing lights compartment.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Retained Repetitive Inspections for Fuel Leaks, with No Changes

This paragraph restates the requirements of paragraph (g) of AD 2014-20-01, with no changes. Within 25 flight hours after October 20, 2014 (the effective date of AD 2014-20-01): Do a general visual inspection for any fuel leak in the right-hand landing lights compartment, and do all applicable related investigative and corrective actions, in accordance with Part A of the Accomplishment Instructions of Bombardier Alert Service Bulletin A605-28-008, Revision 02, dated July 9, 2014, except as required by paragraph (h) of this AD. Do all applicable related investigative and corrective actions before further flight. Repeat the inspection thereafter at intervals not to exceed 8 flight hours until the replacement specified in paragraph (j) of this AD has been accomplished.

(h) Retained Corrective Action for Fuel Leak Found During Related Investigative Actions, with No Changes

This paragraph restates the requirements of paragraph (h) of AD 2014-20-01, with no changes. If any fuel leak is found during the related investigative actions required by paragraph (g) of this AD: Before further flight, do the terminating action specified in paragraph (j) of this AD, or do corrective actions using a method approved by the Manager, New York Aircraft Certification Office (ACO), ANE-170, FAA; or Transport Canada Civil Aviation (TCCA); or Bombardier, Inc.'s TCCA Design Approval Organization (DAO). If approved by the DAO, the approval must include the DAO-authorized signature.

(i) Retained Inspection of Connector Wiring with No Changes

This paragraph restates the requirements of paragraph (j) of AD 2014-20-01, with no changes. For airplanes having new connectors installed, as specified in Part B of the Accomplishment Instructions of Bombardier Alert Service Bulletin A605-28-008, dated April 21, 2014: Within 6 months or 150 flight hours after October 20, 2014 (the effective date of AD 2014-20-01), whichever occurs first, do a detailed inspection for damage (cuts) of the connector wiring, in accordance with Part B of the Accomplishment Instructions of Bombardier Alert Service Bulletin A605-28-008, Revision 02, dated July 9, 2014. If any damage (cuts) is found on the wires, before further flight, replace the wire with a new wire identified in kit 605K28-008A, in accordance with the Accomplishment Instructions of Bombardier Alert Service Bulletin A605-28-008, Revision 02, dated July 9, 2014.

(j) New Requirement: Terminating Action – Replacement of Connector

Within 6 months, or 150 flight hours, whichever occurs first, after the effective date of this AD, replace the connector of the fuel boost pump canister of the APU and do all applicable related investigative actions, in accordance with Part B of the

Accomplishment Instructions of Bombardier Alert Service Bulletin A605-28-008, Revision 02, dated July 9, 2014. Accomplishing this replacement terminates the repetitive actions required by paragraph (g) of this AD, provided that the following actions are done, as applicable.

(1) If any damage (cuts) is found on the wires, before further flight, replace the wire with a new wire identified in kit 605K28-008A, in accordance with the Accomplishment Instructions of Bombardier Alert Service Bulletin A605-28-008, Revision 02, dated July 9, 2014.

(2) If any damage is found on an O-ring, before further flight, replace the O-ring with a new O-ring, in accordance with the Accomplishment Instructions of Bombardier Alert Service Bulletin A605-28-008, Revision 02, dated July 9, 2014.

(3) If any fuel leak is found, before further flight, do corrective actions using a method approved by the Manager, New York ACO, ANE-170, FAA; or TCCA; or Bombardier, Inc.'s TCCA DAO. If approved by the DAO, the approval must include the DAO-authorized signature.

(k) Retained Credit for Previous Actions, with Revised Paragraph Reference

This paragraph restates paragraph (k) of AD 2014-20-01, with a revised paragraph reference. This paragraph provides credit for actions required by paragraph (j) of this AD, if those actions were performed before October 20, 2014 (the effective date of AD 2014-20-01), using Bombardier Alert Service Bulletin A605-28-008, Revision 01, dated May 28, 2014, which is not incorporated by reference in this AD.

(l) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, New York ACO, ANE-170, FAA, has the authority to approve AMOCs for this AD, if requested

using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the ACO, send it to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; fax 516-794-5531. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office. The AMOC approval letter must specifically reference this AD.

(2) Contacting the Manufacturer: As of the effective date of this AD, for any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, New York ACO, ANE-170, FAA; or TCCA; or Bombardier, Inc.'s TCCA DAO. If approved by the DAO, the approval must include the DAO-authorized signature.

(m) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) Canadian Emergency Airworthiness Directive CF-2014-21, dated July 10, 2014, for related information. This MCAI may be found in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2015-3634.

(2) Service information identified in this AD that is not incorporated by reference is available at the addresses specified in paragraphs (n)(4) and (n)(5) of this AD.

(n) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(3) The following service information was approved for IBR on October 20, 2014 (79 FR 59640, October 3, 2014).

(i) Bombardier Alert Service Bulletin A605-28-008, Revision 02, dated July 9, 2014.

(ii) Reserved.

(4) For service information identified in this AD, contact Bombardier, Inc., 400 Côte-Vertu Road West, Dorval, Québec H4S 1Y9, Canada; telephone 514-855-5000; fax 514-855-7401; email thd.crj@aero.bombardier.com.

(5) You may view this service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

(6) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to:
<http://www.archives.gov/federal-register/cfr/ibr-locations.html>.
Issued in Renton, Washington, on May 9, 2016.

Michael Kaszycki,
Acting Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

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